WALTHAM

RETIREMENT SYSTEM AUDIT REPORT

JAN. 1, 2013 - DEC. 31, 2016



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COMMONWEALTH OF MASSACHUSETTS | PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION

PHILIP Y. BROWN, ESQ., Chairman

JOHN W. PARSONS, Executive Director

Auditor SUZANNE M. BUMP | KATHLEEN M. FALLON | KATE FITZPATRICK | JAMES M. MACHADO | ROBERT B. McCARTHY | JENNIFER F. SULLIVAN

November 5, 2019

The Public Employee Retirement Administration Commission has completed an examination of certain activities of the Waltham Retirement System pursuant to G.L. c. 32, § 21. The examination covered the period from January I, 2013 to December 31, 2016. Based on an assessment of the Waltham Retirement System in accordance with the policy outlined in PERAC Memo #18/2019, the scope of this audit was modified as noted below and was conducted in accordance with the accounting and management standards established by the Public Employee Retirement Administration Commission in regulation 840 CMR 25.00.

The specific objectives of our audit were to determine: I) that the Board is exercising appropriate fiduciary oversight, 2) that cash balances are accurately stated, 3) that investment balances are accurately stated, investment related contracts were procured in accordance with G.L. c. 32, § 23B and management fees were paid in accordance with the executed contract, 4) that travel expenses were properly documented and accounted for, 5) that retirement contributions are accurately deducted, and 6) that retirement allowances were correctly calculated.

To achieve these objectives we inspected certain records of the Waltham Retirement Board in the above areas. Specifically we reviewed the minutes of the Board meetings for compliance with fiduciary oversight, verified cash and investment balances, and tested a sample of travel expenses for Board approval, supporting documentation and proper accounting. We reviewed a sample of contracts awarded to investment managers and confirmed that all required documents were maintained. We also compared the management fees paid, to the management fees due per the contract. We tested the payroll records of a sample of active members to confirm that the correct percentage of regular compensation is being deducted, including the additional two percent over \$30,000. We also tested a sample of members who had retired during our audit period to verify that their retirement allowance was correctly calculated in accordance with the statute.

In our opinion, for those areas tested, the financial records are being maintained and the management functions are being performed in conformity with the standards established by the Public Employee Retirement Administration Commission.

We commend the Waltham Retirement Board for the exemplary operation of the system.

In closing, I acknowledge the work of examiners Carol Poladian and Karen Casper who conducted this examination, and express appreciation to the Board and staff for their courtesy and cooperation.

Sincerely.

John W. Parsons, Esq.

Executive Director





ANNUAL STATEMENTS (as submitted)

STATEMENT OF LEDGER ASSETS AND LIABILITIES

	AS OF DECEMBER 31,				
	2016	2015	2014	2013	
Net Assets Available For Benefits:					
Cash	37,766	2,606,428	3,279,572	4,341,129	
Pooled Domestic Equity Funds	47,258,623	0	0	0	
Pooled International Equity Funds	11,809,145	0	0	0	
Pooled Domestic Fixed Income Funds	26,202,350	0	0	0	
Pooled International Fixed Income Funds	7,724,123	0	0	0	
Pooled Alternative Investment Funds	1,782,158	2,612,442	4,291,607	5,583,480	
Pooled Real Estate Funds	11,547,756	5,243,072	10,333,994	9,820,944	
Hedge Funds	6,354,846	0	0	0	
PRIT Core Fund	104,180,688	192,040,012	184,410,213	169,426,472	
Interest Due and Accrued	90,501	0	0	0	
Accounts Receivable	11,442	223,553	33,308	39,876	
Accounts Payable	(76,807)	(14,775)	(19,930)	(12,938)	
Total	\$216,922,592	\$202,710,732	\$202,328,764	\$ <u>189,198,963</u>	
Fund Balances:					
Annuity Savings Fund	68,278,728	64,643,455	60,175,803	58,440,654	
Annuity Reserve Fund	15,621, 4 78	16,119,751	17, 4 02,785	16,635,274	
Pension Fund	18,643,108	18,574,409	18,361,850	18,000,434	
Military Service Fund	0	0	0	2,228	
Expense Fund	0	0	0	0	
Pension Reserve Fund	114,379,278	103,373,117	106,388,327	96,120,374	
Total	\$216,922,592	\$202,710,732	\$202,328,764	\$189,198,963	

STATEMENT OF CHANGES IN FUND BALANCES

	Annuity Savings Fund	Annuity Reserve Fund	Pension Fund	Military Service Fund	Expense Fund	Pension Reserve Fund	Total All Funds
Beginning Balance 2013	\$56,097,773	\$16,372,817	\$17,638,866	\$2,226	\$0	\$77,014,979	\$167,126,661
Receipts	5,473,146	493,256	15,715,069	2	1,641,067	23,535,320	46,857,860
Interfund Transfers	(2,678,807)	2,678,807	4,429,925	0	0	(4,429,925)	0
Disbursements	(<u>451,459</u>)	(2,909,606)	(19,783,426)	<u>0</u>	(1,641,067)	<u>0</u>	(24,785,558)
Ending Balance 2013	58,440,654	16,635,274	18,000,434	2,228	0	96,120,374	189,198,963
Receipts	5,616,475	521,903	16,444,359	0	1,672,085	14,498,173	38,752,994
Interfund Transfers	(3,511,180)	3,511,180	4,232,447	(2,228)	0	(4,230,219)	0
Disbursements	(370,145)	(3,265,573)	(20,315,390)	<u>0</u>	(1,672,085)	<u>0</u>	(25,623,193)
Ending Balance 2014	60,175,803	17,402,785	18,361,850	0	0	106,388,327	202,328,764
Receipts	6,511,114	490,649	16,908,236	0	1,623,697	813,503	26,347,199
Interfund Transfers	(1,632,480)	1,632,480	3,828,713	0	0	(3,828,713)	0
Disbursements	(410,982)	(3,406,163)	(20,524,390)	<u>0</u>	(1,623,697)	<u>0</u>	(25,965,231)
Ending Balance 2015	64,643,455	16,119,751	18,574,409	0	0	103,373,117	202,710,732
Receipts	6,317,592	475,955	17,405,273	0	1,693,378	14,625,222	40,517,420
Interfund Transfers	(2,355,088)	2,355,088	3,619,061	0	0	(3,619,061)	(0)
Disbursements	(327,230)	(3,329,317)	(20,955,635)	<u>o</u>	(1,693,378)	<u>0</u>	(26,305,559)
Ending Balance 2016	\$68,278,728	\$ <u>15,621,478</u>	\$18,643,108	\$ <u>0</u>	\$ <u>0</u>	\$ <u>114,379,278</u>	\$216,922,592

STATEMENT OF RECEIPTS

	FOR THE PERIOD ENDING DECEMBER 31,			
	2016	2015	2014	2013
Annuity Savings Fund:				
Members Deductions	\$5,998,466	\$6,124,130	\$5,099,625	\$5,126,351
Transfers from Other Systems	\$84,617	\$148,392	\$328,051	\$168,870
Member Make Up Payments and Re-deposits	\$83,091	\$139,399	\$85,222	\$110,744
Member Payments from Rollovers	\$85,511	\$33,039	\$37,304	\$3,764
Investment Income Credited to Member Accounts	\$65,906	\$66,154	\$66,274	\$63,417
Sub Total	\$6,317,592	\$6,511,114	\$5,616,475	\$5,473,146
Annuity Reserve Fund:				
Investment Income Credited to the Annuity Reserve				
Fund	\$475,955	\$490,649	\$521,903	\$493,256
Pension Fund:				
3 (8) (c) Reimbursements from Other Systems	\$285,097	\$261,241	\$261,456	\$474,543
Received from Commonwealth for COLA and	,	, ,	• • , • •	, ,,
Survivor Benefits	\$386,532	\$413,351	\$446,426	\$464,735
Pension Fund Appropriation	\$16,733,644	\$16,233,644	\$15,728,477	\$14,735,293
Settlement of Workers' Compensation Claims	\$0	\$0	\$8,000	\$40,498
Recovery of 91A Overearnings	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Sub Total	\$17,405,273	\$16,908,236	\$16,444,359	\$15,715,069
Military Service Fund:				
Investment Income Credited to the Military Service				
Fund	\$0	\$0	\$0	\$2
Expense Fund:	_	_	_	_
Investment Income Credited to the Expense Fund	\$ <u>1,693,378</u>	\$ <u>1,623,697</u>	\$ <u>1,672,085</u>	\$ <u>1,641,067</u>
Pension Reserve Fund:				
Federal Grant Reimbursement	\$71,567	\$77,054	\$74,977	\$69,210
Interest Not Refunded	\$91	\$562	\$4,733	\$1,949
Miscellaneous Income	(\$0)	\$31	\$206	\$0
Excess Investment Income	\$14,553,564 [°]	\$735,856	\$14,418,257	\$23,464,160
Sub Total	\$14,625,222	\$813,503	\$14,498,173	\$23,535,320
Total Receipts, Net	\$40,517,420	\$26,347,199	\$38,752,994	\$46,857,860

STATEMENT OF DISBURSEMENTS

	F	OR THE PERIOD E	NDING DECEMBER	31,
	2016	2015	2014	2013
Annuity Savings Fund:				
Refunds to Members	\$185,009	\$300,411	\$255,828	\$285,476
Transfers to Other Systems	142,221	110,571	114,317	165,983
Sub Total	327,230	410,982	370,145	451,459
Annuity Reserve Fund:				
Annuities Paid	3,329,317	3,207,923	3,119,812	2,909,606
Option B Refunds	0	198,240	145,761	0
Sub Total	3,329,317	3,406,163	3,265,573	2,909,606
Pension Fund:				
Pensions Paid:				
Regular Pension Payments	14,523,765	14,161,212	14,051,170	13,705,752
Survivorship Payments	895,331	835,016	854,884	782,811
Ordinary Disability Payments	220,305	231,696	226,347	222,177
Accidental Disability Payments	3,218,857	3,195,981	3,273,120	3,098,840
Accidental Death Payments	938,360	961,549	887,584	842,588
Section 101 Benefits	239,323	238,776	235,609	208,118
3 (8) (c) Reimbursements to Other Systems	540,147	345,792	333,545	409,747
State Reimbursable COLA's Paid	379,546	554,368	453,131	513,394
Sub Total	20,955,635	20,524,390	20,315,390	19,783,426
Expense Fund:				
Board Member Stipend	15,000	15,000	15,000	15,000
Salaries	467,869	371,791	363,580	371,095
Legal Expenses	11,277	8,082	23,250	29,985
Travel Expenses	5,143	2,936	13,509	7,445
Administrative Expenses	14,433	13,741	14,104	14,909
Actuarial Services	10,500	11,237	0	9,500
Accounting Services	11,336	11,750	8,273	11,400
Education and Training	3,110	1,890	3,183	4,460
Furniture and Equipment	3,706	0	748	0
Management Fees	1,043,982	1,089,603	1,142,895	1,087,949
Custodial Fees	34,278	47,057	45,280	41,245
Consultant Fees	35,000	15,000	7,500	15,000
Service Contracts	25,214	23,450	22,929	21,810
Fiduciary Insurance	12,530	12,160	11,834	11,270
Sub Total	1,693,378	1,623,697	1,672,085	1,641,067
Total Disbursements	\$ <u>26,305,559</u>	\$ <u>25,965,231</u>	\$ <u>25,623,193</u>	\$ <u>24,785,558</u>

INVESTMENT INCOME

		FOR THE PERIOD E	NDING DECEMBER	R 31,
	2016	2015	2014	2013
Investment Income Received From:				
Cash	\$12,758	\$2,048	\$0	\$1,062
Equities	0	64	7,433	9,076
Pooled or Mutual Funds	6,419,163	5,400,057	5,767,537	5,499,346
Total Investment Income	6,431,921	5,402,168	5,774,970	5,509,484
Plus:				
Realized Gains	6,946,268	8,822,002	9,261,843	8,476,420
Unrealized Gains	18,795,941	10,570,850	14,487,256	21,236,298
Interest Due and Accrued - Current Year	90,501	<u>0</u>	<u>0</u>	<u>0</u>
Sub Total	25,832,710	19,392,852	23,749,098	29,712,718
Less:				
Realized Loss	(349,571)	(280,949)	(800,218)	(194,584)
Unrealized Loss	(15,126,257)	(21,597,715)	(12,045,331)	(9,365,526)
Interest Due and Accrued - Prior Year	<u>0</u>	<u>0</u>	<u>0</u>	(<u>189</u>)
Sub Total	(<u>15,475,828</u>)	(<u>21,878,664</u>)	(<u>12,845,549</u>)	(<u>9,560,299</u>)
Net Investment Income	16,788,803	2,916,356	16,678,519	25,661,902
Income Required:				
Annuity Savings Fund	65,906	66,154	66,274	63,417
Annuity Reserve Fund	475,955	490,649	521,903	493,256
Military Service Fund	0	0	0	2
Expense Fund	1,693,378	1,623,697	1,672,085	1,641,067
Total Income Required	2,235,239	2,180,500	2,260,262	2,197,742
Net Investment Income	16,788,803	2,916,356	16,678,519	25,661,902
Less: Total Income Required	2,235,239	2,180,500	2,260,262	2,197,742
Excess Income To The Pension Reserve				
Fund	\$ <u>14,553,564</u>	\$ <u>735,856</u>	\$ <u>14,418,257</u>	\$ <u>23,464,160</u>

SUPPLEMENTARY INFORMATION

SCHEDULE OF ALLOCATION OF INVESTMENTS OWNED

(percentages by category)

	AS OF DECEMBER 31, 2016			
		PERCENTAGE		
		OF TOTAL		
	MARKET VALUE	ASSETS		
Cash	\$37,766	0.02%		
Pooled Domestic Equity Funds	47,258,623	21.8%		
Pooled International Equity Funds	11,809,145	5.4%		
Pooled Domestic Fixed Income Funds	26,202,350	12.1%		
Pooled International Fixed Income Fund	7,724,123	3.6%		
Pooled Alternative Investment Funds	1,782,158	0.8%		
Pooled Real Estate Funds	11,547,756	5.3%		
Hedge Funds	6,354,846	2.9%		
PRIT Core Fund	104,180,688	<u>48.0%</u>		
Grand Total	<u>\$216,897,457</u>	100.0%		

For the year ending December 31, 2016, the rate of return for the investments of the Waltham Retirement System was 8.46%. For the five-year period ending December 31, 2016, the rate of return for the investments of the Waltham Retirement System averaged 9.66%. For the 32-year period ending December 31, 2016, since PERAC began evaluating the returns of the retirement systems, the rate of return on the investments of the Waltham Retirement System was 8.61%.

The composite rate of return for all retirement systems for the year ending December 31, 2016 was 8.08%. For the five-year period ending December 31, 2016, the composite rate of return for the investments of all retirement systems averaged 9.12%. For the 32-year period ending December 31, 2016, since PERAC began evaluating the returns of the retirement systems, the composite rate of return on the investments of all retirement systems averaged 9.11%.

BOARD REGULATIONS

The Waltham Retirement System has adopted Supplemental Regulations which are available on the PERAC website at https://www.mass.gov/waltham-retirement-board-regulations.

SUMMARY OF PLAN PROVISIONS

The plan is a contributory defined benefit plan covering all Waltham Retirement System member unit employees deemed eligible by the retirement board, with the exception of school department employees who serve in a teaching capacity. The Teachers' Retirement Board administers the pensions of such school employees.

ADMINISTRATION

There are 104 contributory retirement systems for public employees in Massachusetts. Each system is governed by a retirement board and all boards, although operating independently, are governed by Chapter 32 of the Massachusetts General Laws. This law in general provides uniform benefits, uniform contribution requirements and a uniform accounting and funds structure for all systems.

PARTICIPATION

Participation is mandatory for all full-time employees. Eligibility with respect to part-time, provisional, temporary, seasonal or intermittent employment is governed by regulations promulgated by the retirement board, and approved by PERAC. Membership is optional for certain elected officials.

There are 4 classes of membership in the retirement system, but one of these classes, Group 3, is made up exclusively of the State Police. The other 3 classes are as follows:

Group I:

General employees, including clerical, administrative, technical and all other employees not otherwise classified.

Group 2:

Certain specified hazardous duty positions.

Group 4:

Police officers, firefighters, and other specified hazardous positions.

MEMBER CONTRIBUTIONS

Member contributions vary depending on the most recent date of membership:

Prior to 1975: 5% of regular compensation 1975 - 1983: 7% of regular compensation 1984 to 6/30/96: 8% of regular compensation 7/1/96 to present: 9% of regular compensation

1979 to present: an additional 2% of regular compensation in excess of \$30,000.

In addition, members of Group I who join the system on or after April 2, 2012 will have their withholding rate reduced to 6% after achieving 30 years of creditable service.

RATE OF INTEREST

Interest on regular deductions made after January I, 1984 is a rate established by PERAC in consultation with the Commissioner of Banks. The rate is obtained from the average rates paid on individual savings accounts by a representative sample of at least 10 financial institutions.

RETIREMENT AGE

The mandatory retirement age for some Group 2 and Group 4 employees is age 65. Most Group 2 and Group 4 members may remain in service after reaching age 65. Group 4 members who are employed in certain public safety positions are required to retire at age 65. There is no mandatory retirement age for employees in Group 1.

SUPERANNUATION RETIREMENT

A person who became a member before April 2, 2012 is eligible for a superannuation retirement allowance (service retirement) upon meeting the following conditions:

- completion of 20 years of service, or
- attainment of age 55 if hired prior to 1978, or if classified in Group 4, or
- attainment of age 55 with 10 years of service, if hired after 1978, and if classified in Group 1 or 2.

A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance (service retirement) upon meeting the following conditions:

- attainment of age 60 with 10 years of service if classified in Group 1, or
- attainment of age 55 with 10 years of service if classified in Group 2, or
- attainment of age 55 if classified in Group 4.

AMOUNT OF BENEFIT

A member's annual allowance is determined by multiplying average salary by a benefit rate related to the member's age and job classification at retirement, and the resulting product by his creditable service. The amount determined by the benefit formula cannot exceed 80% of the member's highest three year (or five year as discussed below) average salary. For veterans as defined in G.L. c. 32, s. I, there is an additional benefit of \$15 per year for each year of creditable service, up to a maximum of \$300.

For employees who become members after January I, 2011, regular compensation is limited to 64% of the federal limit found in 26 U.S.C. 401(a)(17). In addition, regular compensation will be limited to prohibit "spiking" of a member's salary to increase the retirement benefit.

- For persons who became members prior to April 2, 2012, Average Salary is the average annual rate of regular compensation received during the 3 consecutive years that produce the highest average, or, if greater, during the last 3 years (whether or not consecutive) preceding retirement.
- For persons who became members on or after April 2, 2012, Average Salary is the average annual rate of regular compensation received during the 5 consecutive years that produce the highest average, or, if greater, during the last 5 years (whether or not consecutive) preceding retirement.
- The Benefit Rate varies with the member's retirement age. For persons who became members prior to April 2, 2012 the highest rate of 2.5% applies to Group I employees who retire at or after age 65, Group 2 employees who retire at or after age 60, and to Group 4 employees who retire at or after age 55. A .1% reduction is applied for each year of age under the maximum age for the member's group. For Group 2 employees who terminate from service under age 55, the benefit rate for a Group I employee shall be used.
- For persons who became members on or after April 2, 2012 and retire with less than 30 years of creditable service, the highest rate of 2.5% applies to Group I employees who retire at or after age 67, Group 2 employees who retire at or after age 62, and to Group 4 employees who retire at or after age 57. A .15% reduction is applied for each year of age under the maximum age for the member's group.
- For persons who became members on or after April 2, 2012 and retire with more than 30 years of creditable service, the highest rate of 2.5% applies to Group I employees who retire at or after age 67, Group 2 employees who retire at or after age 62, and to Group 4 employees who retire at or after age 57. A .125% reduction is applied for each year of age under the maximum age for the member's group.

DEFERRED VESTED BENEFIT

A participant who has attained the requisite years of creditable service can elect to defer his or her retirement until a later date. Certain public safety employees cannot defer beyond age 65. All participants must begin to receive a retirement allowance or withdraw their accumulated deductions no later than April 15 of the calendar year following the year they reach age 70½.

WITHDRAWAL OF CONTRIBUTIONS

Member contributions may be withdrawn upon termination of employment. The interest rate for employees who first become members on or after January I, 1984 who voluntarily withdraw their contributions with less than 10 years of service will be 3%. Interest payable on all other withdrawals will be set at regular interest.

DISABILITY RETIREMENT

The Massachusetts Retirement Plan provides 2 types of disability retirement benefits:

ORDINARY DISABILITY

Eligibility: Non-veterans who become totally and permanently disabled by reason of a non-job related condition with at least 10 years of creditable service (or 15 years creditable service in systems in which the local option contained in G.L. c. 32, s. 6(1) has not been adopted).

Veterans with ten years of creditable service who become totally and permanently disabled by reason of a non-job related condition prior to reaching "maximum age". "Maximum age" applies only to those employees classified in Group 4 who are subject to mandatory retirement.

Retirement Allowance: For persons who became members prior to April 2, 2012, the benefit is equal to the accrued superannuation retirement benefit as if the member was age 55. If the member is a veteran, the benefit is 50% of the member's final rate of salary during the preceding 12 months, plus an annuity based upon accumulated member contributions plus credited interest. If the member is over age 55, he or she will receive not less than the superannuation allowance to which he or she is entitled.

For persons in Group I who became members on or after April 2, 2012, the benefit is equal to the accrued superannuation retirement benefit as if the member was age 60. If the member is a veteran, the benefit is 50% of the member's final rate of salary during the preceding I2 months, plus an annuity based upon accumulated member contributions plus credited interest. If the member is over age 60, he or she will receive not less than the superannuation allowance to which he or she would have been entitled had they retired for superannuation.

For persons in Group 2 and Group 4 who became members on or after April 2, 2012, the benefit is equal to the accrued superannuation retirement benefit as if the member was age 55. If the member is a veteran, the benefit is 50% of the member's final rate of salary during the preceding 12 months, plus an annuity based upon accumulated member contributions plus credited interest. If the member is over age 55, he or she will receive not less than the superannuation allowance to which he or she would have been entitled had they retired for superannuation.

ACCIDENTAL DISABILITY

Eligibility: Applies to members who become permanently and totally unable to perform the essential duties of the position as a result of a personal injury sustained or hazard undergone while in the performance of duties. There are no minimum age or service requirements.

Retirement Allowance: 72% of salary plus an annuity based on accumulated member contributions, with interest. This amount is not to exceed 100% of pay. For those who became members in service after January I, 1988 or who have not been members in service continually since that date, the amount is limited to 75% of pay. There is an additional pension of \$871.56 per year (or \$312.00 per year in systems in which the local option contained in G.L. c. 32, s. 7(2)(a)(iii) has not been adopted), per child who is under 18 at the time of the member's retirement, with no age limitation if the child is mentally or physically incapacitated from earning. The additional pension may continue up to age 22 for any child who is a full time student at an accredited educational institution. For systems that have adopted Chapter 157 of the Acts of 2005, veterans as defined in G.L. c. 32, s. I receive an additional benefit of \$15 per year for each year of creditable service, up to a maximum of \$300.

ACCIDENTAL DEATH

Eligibility: Applies to members who die as a result of a work-related injury or if the member was retired for accidental disability and the death was the natural and proximate result of the injury or hazard undergone on account of which such member was retired.

Allowance: An immediate payment to a named beneficiary equal to the accumulated deductions at the time of death, plus a pension equal to 72% of current salary and payable to the surviving spouse, dependent children or the dependent parent, plus a supplement of \$871.56 per year, per child (or \$312.00 per year in systems in which the local option contained in G.L. c. 32, s. 9(2)(d)(ii) has not been adopted), payable to the spouse or legal guardian until all dependent children reach age 18 or 22 if a full time student, unless mentally or physically incapacitated.

The surviving spouse of a member of a police or fire department or any corrections officer who, under specific and limited circumstances detailed in the statute, suffers an accident and is killed or sustains injuries while in the performance of his duties that results in his death, may receive a pension equal to the maximum salary for the position held by the member upon his death. In addition, an eligible family member may receive a one-time payment of \$150,000.00 from the State Retirement Board. This lump sum payment is also available to the family of a public prosecutor in certain, limited circumstances.

DEATH AFTER ACCIDENTAL DISABILITY RETIREMENT

Effective November 7, 1996, Accidental Disability retirees were allowed to select Option C at retirement and provide a benefit for an eligible survivor. For Accidental Disability retirees prior to November 7, 1996, who could not select Option C, if the member's death is from a cause unrelated to the condition for which the member received accidental disability benefits, a surviving spouse will receive an annual allowance of \$6,000. For Systems that accept the provisions of Section 28 of Chapter 131 of the Acts of 2010, the amount of this benefit is \$9,000. For Systems that accept the provisions of Section 63 of Chapter 139 of the Acts of 2012, the amount of this benefit is \$12,000.

DEATH IN ACTIVE SERVICE (OPTION D)

Allowance: An immediate allowance equal to that which would have been payable had the member retired and selected Option C on the day before his or her death. For a member who became a member prior to April 2, 2012 whose death occurred prior to the member's superannuation retirement age, the age 55 benefit rate is used. For a member classified in Group I who became a member on or after April 2, 2012 whose death occurred prior to the member's superannuation retirement age, the age 60 benefit rate is used. If the member died after age 60, the actual age is used. For a member classified in Group 2 or Group 4, whose death occurred prior to the member's minimum superannuation retirement age, the benefit shall be calculated using an age 55 age factor. The minimum annual allowance payable to the surviving spouse of a member in service who dies with at least two years of creditable service is \$3,000 unless the retirement system has accepted the local option increasing this minimum annual allowance to \$6,000, provided that the member and the spouse were married for at least one year and living together on the member's date of death.

The surviving spouse of such a member in service receives an additional allowance equal to the sum of \$1,440 per year for the first child and \$1,080 per year for each additional child until all dependent children reach age 18 or 22 if a full time student, unless mentally or physically incapacitated.

COST OF LIVING

If a system has accepted Chapter 17 of the Acts of 1997, and the Retirement Board votes to pay a cost of living increase (COLA) for that year, the percentage is determined based on the increase in the Consumer Price Index used for indexing Social Security benefits, but cannot exceed 3.0%. Section 51 of Chapter 127 of the Acts of 1999, if accepted, allows boards to grant COLA increases greater than that determined by CPI but not to exceed 3.0%. Only a certain portion of a retiree's total allowance is subject to a COLA. The total COLA for periods from 1981 through 1996 is paid for by the Commonwealth of Massachusetts.

Under the provisions of Chapter 32, Section 103(j) inserted by Section 19 of Chapter 188 of the Acts of 2010, systems may increase the maximum base on which the COLA is calculated in multiples of \$1,000. For many years the COLA base was calculated based upon the first \$12,000 of a retiree's allowance. Now the maximum base upon which the COLA is calculated varies from system to system. Each increase in the base must be accepted by a majority vote of the Retirement Board and approved by the legislative body.

METHODS OF PAYMENT

A member may elect to receive his or her retirement allowance in one of 3 forms of payment.

Option A: Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the member's death.

Option B: A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided, however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.

Option C: A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up" to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

ALLOCATION OF PENSION COSTS

If a member's total creditable service was partly earned by employment in more than one retirement system, the cost of the "pension portion" is allocated between the different systems pro rata based on the member's service within each retirement system. In certain circumstances, if a member received regular compensation concurrently from two or more systems on or after January I, 2010, and was not vested in both systems as of January I, 2010, such a pro-ration may not be undertaken. This is because such a person may receive a separate retirement allowance from each system.

SIGNIFICANT ACCOUNTING POLICIES

The accounting records of the System are maintained on a calendar year basis in accordance with the standards and procedures established by the Public Employee Retirement Administration Commission.

<u>Cash</u> accounts are considered to be funds on deposit with banks and are available upon demand.

<u>Short Term Investments</u> are highly liquid investments that will mature within twelve months from the date of acquisition.

Investments are reported at their fair value. Securities traded on recognized exchanges are valued at the most recent sales price at year end. If no sale was reported, the mean of the bid and asked price is used when available, or the most recent bid price. Mutual, commingled and pooled funds are valued based on the net asset or unit value at year end. Real estate and alternative investments are valued based on estimates provided by the managers of those respective investments. Purchases and sales of securities are reflected on the date the trade is initiated. Realized gain or loss is largely based on the difference between the cost or the value at the prior year end and the funds realized upon liquidation. Dividend income is generally recorded when received. Interest income is recorded as earned on an accrual basis. Income from alternative investments is recorded as reported by the managing partner. Appreciation or depreciation in the value of investments consists of the unrealized gains and losses reported as the difference between the previous period and the current value.

The system makes estimates and assumptions that affect the reported values of assets and liabilities and the reported amounts added and deducted during the reporting periods. The fair value of real estate and alternative investment holdings are generally estimated in the absence of reliable exchange values. The actual funds realized upon liquidation may differ from these estimates.

The provisions of Massachusetts General Laws Chapter 32, § 23(2) generally govern the investment practices of the system. The Board primarily relies upon the investment strategy of the PRIM Board to maintain their progress toward full funding of the system. That strategy seeks to balance the exposure to common deposit and investment risks related to custody, credit concentrations, interest rate and foreign currency fluctuations.

Operating expenses include the ordinary and necessary cost of investment and professional services and the other miscellaneous <u>administrative expenses</u> of the system.

The <u>Annuity Savings Fund</u> is the fund in which members' contributions are deposited. Voluntary contributions, re-deposits, and transfers to and from other systems, are also accounted for in this fund. Members' contributions to the fund earn interest at a rate determined by PERAC. Interest for some members who withdraw with less than ten years of service is transferred to the Pension Reserve Fund. Upon retirement, members' contributions and interest are transferred to the Annuity Reserve Fund. Dormant account balances must be transferred to the Pension Reserve Fund after a period of ten years of inactivity.

The <u>Annuity Reserve Fund</u> is the fund to which a member's account is transferred upon retirement from the Annuity Savings Fund and Special Military Service Credit Fund. The annuity portion of the retirement allowance is paid from this fund. Interest is credited monthly to this fund at the rate of 3% annually on the previous month's balance.

The <u>Special Military Service Credit Fund</u> contains contributions and interest for members while on a military leave for service in the Armed Forces who will receive creditable service for the period of that leave.

The <u>Expense Fund</u> contains amounts transferred from investment income for the purposes of administering the retirement system.

The <u>Pension Fund</u> contains the amounts appropriated by the governmental units as established by PERAC to pay the pension portion of each retirement allowance.

The <u>Pension Reserve Fund</u> contains amounts appropriated by the governmental units for the purposes of funding future retirement benefits. Any profit or loss realized on the sale or maturity of any investment or on the unrealized gain of a market valued investment as of the valuation date is credited to the Pension Reserve Fund. Additionally, any investment income in excess of the amount required to credit interest to the Annuity Savings Fund, Annuity Reserve Fund, and Special Military Service Credit Fund is credited to this Reserve account.

The <u>Investment Income Account</u> is credited with all income derived from interest and dividends of invested funds. At year-end the interest credited to the Annuity Savings Fund, Annuity Reserve Fund, Expense Fund, and Special Military Service Credit Fund is distributed from this account and the remaining balance is transferred to the Pension Reserve Fund.

ADMINISTRATION OF THE SYSTEM

The System is administered by a five-person Board of Retirement consisting of the City Auditor who shall be a member ex-officio, a second member appointed by the governing authority, a third and fourth member who shall be elected by the members in or retired from the service of such system, and a fifth member appointed by the other four board members.

Ex-officio Member: Paul G. Centofanti

Appointed Member: Elizabeth Arnold Serves until a successor is appointed

Elected Member: William MacDonald, Chairman Term Expires: 12/19/2020

Elected Member: Scott Hovsepian Term Expires: 6/30/2020

Appointed Member: Mary Rosen Term Expires: 1/31/2021

The Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the system. The board must annually file a financial statement of condition for the system with the Executive Director of PERAC.

The investment of the system's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the system has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by two persons designated by the Board.

Retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts. Fidelity insurance is the only required policy coverage under Ch. 32 §21 and §23 as well as 840 CMR 17.01. The policy is designed to cover specific intentional acts such as theft, fraud or embezzlement and also specify who commits such acts, most commonly employees of the system. This coverage reimburses the system for the losses it suffers as a result of its employees' actions. It does not insure the employees for their illegal acts. Statutorily required coverage is provided by the current fidelity insurance policy to a limit of \$1,000,000 with a \$10,000 deductible issued through Travelers Casualty and Surety Company. The system also has Fiduciary coverage to a limit of \$50,000,000 under a blanket policy issued through the Massachusetts Association of Contributory Retirement Systems.

ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by Sherman Actuarial Services as of January 1, 2017.

The actuarial liability for active members was	\$179,235,714
The actuarial liability for retired and inactive members was	<u>208,567,438</u>
The total actuarial liability was	\$387,803,152
System assets as of that date were (actuarial value)	223,584,317
The unfunded actuarial liability was	\$ <u>164,218,835</u>
The ratio of system's assets to total actuarial liability was	57.7%
As of that date the total covered employee payroll was	\$61,634,166

The normal cost for employees on that date was 8.9% of payroll

The normal cost for the employer including administrative expenses was 3.3% of payroll

The principal actuarial assumptions used in the valuation are as follows:

Investment Return: 7.75% per annum Rate of Salary Increase: 3.50% per annum

SCHEDULE OF FUNDING PROGRESS AS OF JANUARY 1, 2017

Actuarial	Actuarial Value of	Actuarial Accrued	Unfunded AAL	Funded	Covered	UAAL as a % of
Valuation	Assets	Liability	(UAAL)	Ratio	Payroll	Cov. Payroll
Date	(a)	(b)	(b-a)	(a/b)	(c)	((b-a)/c)
1/1/2017	\$223,584,317	\$387,803,152	\$164,218,835	57.7%	\$61,634,166	266.4%
1/1/2016	\$208,774,746	\$371,275,737	\$162,500,991	56.2%	\$59,292,926	274.1%
1/1/2015	\$195,155,759	\$349,080,213	\$153,924,454	55.9%	\$55,578,341	277.0%
1/1/2013	\$165,040,789	\$324,109,193	\$159,068,404	50.9%	\$50,696,522	313.8%
1/1/2011	\$168,017,364	\$301,356,797	\$133,339,433	55.8%	\$48,493,764	275.0%

MEMBERSHIP EXHIBIT

2007	2008	2009	2010	2011	2012	2012	2014		
	2.4				2012	2013	2014	2015	2016
	2.4								
	24	22	15	39	17	24	29	14	21
0	0	0	0	0	2	0	0	0	0
<u>3</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>3</u>	<u>1</u>	<u>2</u>
25	27	23	16	40	21	24	32	15	23
779	778	792	762	773	774	759	757	75 I	750
920	909	895	892	881	906	885	910	921	929
0,778,155	\$11,198,220	\$11,541,997	\$11,626,326	\$12,800,557	\$13,398,299	\$13,705,752	\$14,051,170	\$14,161,212	\$ 14,523,76
615,346	624,635	661,936	694,527	752,231	785,925	782,811	854,884	835,016	895,33
193,539	192,254	180,650	183,443	186,369	204,339	222,177	226,347	231,696	220,30
2,897,231	2,843,213	2,900,816	2,929,120	2,961,260	3,020,194	3,098,840	3,273,120	3,195,981	3,218,85
2,131,548	1,964,478	1,929,018	1,970,339	2,079,884	1,843,080	1,050,706	1,123,193	1,200,325	1,177,68
6,615,819	\$ <u>16,822,800</u>	\$ <u>17,214,417</u>	\$ <u>17,403,755</u>	\$ <u>18,780,301</u>	\$ <u>1</u> 9,251,837	\$ <u>18,860,286</u>	\$ <u>1</u> 9,528,714	\$ <u>19,624,231</u>	\$20,035,94
2 2	779 920 9,778,155 615,346 193,539 1,897,231 1,131,548	25 27 779 778 920 909 9,778,155 \$11,198,220 615,346 624,635 193,539 192,254 2,897,231 2,843,213 1,131,548 1,964,478	25 27 23 779 778 792 920 909 895 9,778,155 \$11,198,220 \$11,541,997 615,346 624,635 661,936 193,539 192,254 180,650 2,897,231 2,843,213 2,900,816 2,131,548 1,964,478 1,929,018	25 27 23 16 779 778 792 762 920 909 895 892 9,778,155 \$11,198,220 \$11,541,997 \$11,626,326 615,346 624,635 661,936 694,527 193,539 192,254 180,650 183,443 2,897,231 2,843,213 2,900,816 2,929,120 2,131,548 1,964,478 1,929,018 1,970,339	25 27 23 16 40 779 778 792 762 773 920 909 895 892 881 9,778,155 \$11,198,220 \$11,541,997 \$11,626,326 \$12,800,557 615,346 624,635 661,936 694,527 752,231 193,539 192,254 180,650 183,443 186,369 1,897,231 2,843,213 2,900,816 2,929,120 2,961,260 2,131,548 1,964,478 1,929,018 1,970,339 2,079,884	25 27 23 16 40 21 779 778 792 762 773 774 920 909 895 892 881 906 9,778,155 \$11,198,220 \$11,541,997 \$11,626,326 \$12,800,557 \$13,398,299 615,346 624,635 661,936 694,527 752,231 785,925 193,539 192,254 180,650 183,443 186,369 204,339 1,897,231 2,843,213 2,900,816 2,929,120 2,961,260 3,020,194 2,131,548 1,964,478 1,929,018 1,970,339 2,079,884 1,843,080	25 27 23 16 40 21 24 779 778 792 762 773 774 759 920 909 895 892 881 906 885 9,778,155 \$11,198,220 \$11,541,997 \$11,626,326 \$12,800,557 \$13,398,299 \$13,705,752 615,346 624,635 661,936 694,527 752,231 785,925 782,811 193,539 192,254 180,650 183,443 186,369 204,339 222,177 2,897,231 2,843,213 2,900,816 2,929,120 2,961,260 3,020,194 3,098,840 2,131,548 1,964,478 1,929,018 1,970,339 2,079,884 1,843,080 1,050,706	25 27 23 16 40 21 24 32 779 778 792 762 773 774 759 757 920 909 895 892 881 906 885 910 9,778,155 \$11,198,220 \$11,541,997 \$11,626,326 \$12,800,557 \$13,398,299 \$13,705,752 \$14,051,170 615,346 624,635 661,936 694,527 752,231 785,925 782,811 854,884 193,539 192,254 180,650 183,443 186,369 204,339 222,177 226,347 2,897,231 2,843,213 2,900,816 2,929,120 2,961,260 3,020,194 3,098,840 3,273,120 2,131,548 1,964,478 1,929,018 1,970,339 2,079,884 1,843,080 1,050,706 1,123,193	25 27 23 16 40 21 24 32 15 779 778 792 762 773 774 759 757 751 920 909 895 892 881 906 885 910 921 9,778,155 \$11,198,220 \$11,541,997 \$11,626,326 \$12,800,557 \$13,398,299 \$13,705,752 \$14,051,170 \$14,161,212 615,346 624,635 661,936 694,527 752,231 785,925 782,811 854,884 835,016 193,539 192,254 180,650 183,443 186,369 204,339 222,177 226,347 231,696 2,897,231 2,843,213 2,900,816 2,929,120 2,961,260 3,020,194 3,098,840 3,273,120 3,195,981 4,131,548 1,964,478 1,929,018 1,970,339 2,079,884 1,843,080 1,050,706 1,123,193 1,200,325

